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09/990,722

11/21/2001

Frank Martinez

6542/53655

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30505

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07/26/2006

LAW OFFICE OF MARK J. SPOLYAR
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EXAMINER

LEZAK, ARRIENNE M

ART UNIT

PAPER NUMBER

2143

DATE MAILED: 07/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/990,722

Applicant(s)

MARTINEZ ET AL.

Examiner

Arrienne M. Lezak

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23, 28 and 29 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-23, 28 and 29 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 15 June 2006 has been entered.
2. Examiner notes that Claims 1, 5, 15, 18 & 28 have been amended, and no claims have been cancelled or added. Claims not explicitly addressed herein are found to be addressed within prior Office Action dated 15 December 2005 as reiterated herein below.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
4. Claims 1-23, 28 & 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combined teachings of US Patent US 6,408,282 B1 to Buist in view of US

Patent Pub. US 2001/0054020 to Barth in further view of US Patent Pub. US 2003/0041094 A1 to Lara.

5. Regarding Claims 1, 5, 10, 11, 15, 18, 28 & 29, Buist discloses a method and system enabling a web services network, (Abstract; Figs. 1 & 2; Col. 6, lines 62-67; & Col. 7, lines 1-12), comprising:

a root network services engine operably connected to a computer network, (Figs. 1 & 2; Col. 6, lines 62-67; & Cols. 7-11):

- the root network services engine maintaining a persistent data store storing a global routing table including routing entries allowing for the routing of service action requests and responses over the computer network, (Figs. 1 & 2; Col. 7, lines 56-67; Col. 8, lines 1-62; & Col. 9, lines 10-41), (Examiner notes that the use of multiple load-balancers on multiple hierarchically situated servers and/or routers would have been obvious in light of the teachings of Buist to further facilitate even load distribution among replica servers, (Col. 9, lines 20-27));

a network services engine operably connected to the computer network, via a routing device, (per pending Claim 11), (Examiner notes that load-balancers may obviously be incorporated into servers and further that load-balancers obviously, if not inherently, perform a routing functionality, thereby acting as a routing device), (Figs 1 & 2; Col. 6, lines 62-67; & Cols. 7-11):

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- the network services engine maintaining a persistent data store storing a first local routing table including routing entries allowing for the routing of service actions requests and responses over the computer network, (per pending Claim 18), (Figs. 1 & 2 & Col. 8, lines 3-31), (Examiner notes that the use of multiple load-balancers on multiple hierarchically situated servers and/or routers would have been obvious in light of the teachings of Buist to further facilitate even load distribution among replica servers, (Col. 9, lines 20-27));

at least one network services switch operably connected to the computer network via existing routing nodes, (per pending Claim 29), (Figs 1 & 2; Col. 6, lines 62-67; & Cols. 7-11):

- the network services switch maintaining a second local routing table, (a subset of the first routing table – per pending Claim 10), including routing entries allowing for the routing of service actions requests and responses over the computer network, (Figs. 1-2 & Col. 8, lines 3-31), (Examiner notes that the use of multiple load-balancers on multiple hierarchically situated servers and/or routers would have been obvious in light of the teachings of Buist to further facilitate even load distribution among replica servers, (Col. 9, lines 20-27));

- wherein the routing node (network services switch) and the network services engine are operative to route received service action requests, (including action identifiers), from subscribing nodes, and service action responses to appropriate nodes connected to the computer network, (Col. 8, lines 3-31);
- wherein the root network services engine is operative to add a routing entry to the first and/or second local routing table in response to a routing entity request, (Col. 7, lines 56-67; Col. 8, lines 1-62), (Examiner notes that in addition to updating databases within a hierarchy, Buist teaches the receipt of updated information from a user workstation, which information would obviously include routing information for servicing a user request, as the routing information would be necessary for location of a user workstation within a hierarchical structure, (Col. 7, lines 1-12), such as that of Buist);
- wherein the network services engine is operative to add a routing entry to the second local routing table in response to a routing entity request, (Col. 7, lines 56-67; Col. 8, lines 1-62), (Examiner notes that in addition to updating databases within a hierarchy, Buist teaches the receipt of updated information from a user workstation, which information would obviously include routing information for servicing a user request, as the routing information would be necessary for location of a user workstation within a hierarchical structure, (Col. 7, lines 1-12), such as that of Buist);

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- wherein the network services engine passes routing entity requests associated with a routing entry not contained in the first local routing table, (i.e.: new data), to the root network services engine, (Col. 8, lines 3-31; Col. 10, lines 63-67; & Col. 11, lines 1-14), (Examiner notes that new data would obviously not be contained in any routing table); and
- wherein the network services switch is operative to transmit a routing entity request to the network services engine in response to a service action request requiring a routing entry not contained in the second local routing table, (Col. 8, lines 3-31; Col. 10, lines 63-67; & Col. 11, lines 1-14), (Examiner notes that new data would obviously not be contained in any routing table. Moreover, Examiner notes that within the Buist hierarchical system, all requests and responses between entities would have been obvious for purposes of efficient and reliable information location, distribution and synchronization between any two or more levels within the hierarchy).

6. Examiner notes that though Buist teaches a system and method for conducting securities transactions over a computer (Internet) network, Buist does not specifically teach load-balancing among web servers for general information inquiries. Barth discloses a dynamic information collection engine which electronically extracts information from third-party websites, direct supplier connections and intermediate databases, (Barth - paragraph #0013), within a fault-tolerant system employing hierarchical mechanisms, which mechanisms include load-balancers, (Barth –

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paragraphs #0074-0078), and which fault-tolerant load-balancing system would have been obvious to incorporate into the Buist system to further facilitate even load distribution among replica servers, (Col. 9, lines 20-27)).

7. Examiner further notes that Applicant has amended the claim language to specify a routing entry comprising an action identifier and a corresponding network resource locator, in addition to a routing node operable to route service requests including action identifiers to service providing endpoints associated with the network resource locators corresponding to the action identifiers. Examiner finds that Barth clearly teaches the user of HTTP, HTML and URLs to identify and manipulate data upon the World Wide Web, (Barth – paragraphs #0035-0045), which obviously reads upon an action identifier and corresponding network resource locator. Additionally, as noted by Applicant, Barth discloses, “the search server as another service providing endpoint, while the load balancer arbitrates among the service providing endpoints”, (Amendment dated 21 September, 2005 – p. 13), which obviously reads upon “a routing node (load balancer) operable to route service requests including action identifiers to service providing endpoints associated with the network resource locators corresponding to the action identifiers”.

8. That noted, Examiner additionally provides the Lara reference which clearly teaches a parent node/routing node, (manager/traffic manager), each operative to establish connections, (transmit/receipt of service action requests/responses) to the service providing endpoints, (per pending Claims 5 & 18), (Host web server(s)), associated with the network resource locators corresponding to the action identifiers,

(Fig. 2 & paragraphs #0028-0047). It would have been obvious to incorporate the Lara routing functionality into the Buist system to further facilitate even load distribution among replica (i.e.: web) servers, (Col. 9, lines 20-27), and to facilitate an increase in the number of web page requests that may be received and responded to, (Lara – paragraph #0003), by incorporating the Lara traffic manage/manager internet protocol bridge/router into the Buist hierarchical network design. Thus Claims 1, 5, 10, 11, 15, 18, 28 & 29 are found to be unpatentable over the combine teachings of Buist, Barth & Lara.

9. Regarding Claims 2, 6, 16, 17 & 20, the combined teachings of Buist, Barth & Lara are relied upon as noted herein. Buist further discloses a parent node operative to maintain the local routing table(s) on the (child) routing node(s) associated therewith, (per pending Claims 2, 6, 16 & 20), (Col. 8, lines 3-31). Thus Claims 2, 6, 16, 17 & 20 are found to be unpatentable over the combined teachings of Buist, Barth & Lara.

10. Regarding Claims 7-9 & 21-23, the combined teachings of Buist, Barth & Lara are relied upon as noted herein. Though Buist teaches an update functionality, it does not specifically disclose a time-stamp comparison. Barth specifically teaches a time-stamp comparison, (Barth – paragraphs #0237-0238), wherein a comparison is made, (either periodically or on-demand), to determine the necessity of an update, and which comparison in combination with the update functionalities disclosed within Buist obviously reads upon a routing matrix facilitating identification of out-of-date routing entries in the local routing table(s) of the routing node(s) associated with the parent node, (per pending Claims 7 & 21), wherein the routing matrix contains parent node

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update stamps for corresponding routing entries in the first routing table; and wherein, for each routing node associated with the parent node, the routing matrix obviously contains a routing node update stamp for each routing entry in the local routing table, (per pending Claims 8 & 22), and wherein the parent node is operative to update a routing entry in the local routing table of a routing node based on a comparison of the corresponding parent node update stamp and routing node update stamp, (per pending Claims 9 & 23). Thus Claims 7-9 & 21-23 are found to be unpatentable over the combined teachings of Buist, Barth & Lara.

11. Regarding Claims 3 & 19, the combined teachings of Buist, Barth & Lara are relied upon as noted herein. Buist further discloses wherein the parent node is operative to receive and process updates to routing entries in the first routing table; and wherein, in response to the updates, the parent node is operative to update the local routing table(s) on the routing node(s) associated therewith, (Col. 8, lines 3-31), (Examiner further notes that updates to and from any point in the hierarchical chain would have been obvious in light of the teachings of Buist). Thus Claims 3 & 19 are found to be unpatentable over the combined teachings of Buist, Barth & Lara.

12. Regarding Claim 4, the combined teachings of Buist, Barth & Lara are relied upon as noted herein. Buist further discloses the parent node as a root node, and the first routing table as an obvious global routing table, (Figs. 1 & 2; Col. 8, lines 3-31). Thus Claim 4 is found to be unpatentable over the combined teachings of Buist, Barth & Lara.

13. Regarding Claims 12-14, the combined teachings of Buist, Barth & Lara are relied upon as noted herein. Buist further comprising a console application providing a user interface facilitating configuration of the parent node and the routing node, (per pending Claim 12), wherein the console application transmits service action requests, (over the web – per pending Claim 14), operative to change the configuration of the parent node and/or the routing node, (per pending Claim 13), (Col. 8, lines 3-31 & Col. 11, lines 15-53), (Examiner notes that Buist provides a globally customizable GUI in addition to a hierarchical update functionality wherein the change to a configuration could obviously be an update done over the network, which network obviously includes the Internet). Thus Claims 12-14 are found to be unpatentable over the combined teachings of Buist, Barth & Lara.

Response to Arguments

14. Applicant's arguments filed 15 June 2006, have been fully considered but they are not persuasive. Applicant's arguments do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made.

15. Examiner notes that Applicant has accused Examiner of "misapprehending the teachings of the cited references", (Amendment dated 15 June 2006, p. 12/25), and Examiner respectfully disagrees noting that it is not in any way inappropriate or illegal to

extract, seize and apply the teachings of the cited references, (prior art), when rejecting Applicants claimed invention.

16. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "a load-balancer hierarchy") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Specifically, nowhere in Applicant's claim language is a load-balancer heirarchy ever mentioned. Additionally, Applicant clearly admits that "Buist teaches a hierarchical system of servers" and "Buist discloses a load balancer", (Amendment dated 15 June 2006, p. 13/25), and Barth clearly teaches a fault-tolerant system comprising a number of separate hierarchical mechanisms, including load-balancers", (Barth – paragraph #0075 & Fig. 7), which fault-tolerant load-balancing system would have been obvious to incorporate into the Buist system to further facilitate even load distribution among replica servers, (Buist – Fig. 1 & Col. 9, lines 20-27)).

17. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Examiner notes that the combined teachings of the cited references, in combination, render each and every aspect of Applicants claimed invention unpatentable.

18. Regarding Applicant's argument that "routing information" is not necessarily disseminated throughout the hierarchy, Examiner respectfully disagrees noting that any information sent by any device at any time within a network is well-known to include some sort of routing data/information for purposes of proper transmission. Additionally, Applicant's contention that a workstation is not part of a network hierarchy is also incorrect as a workstation is well-known to be, (though not limited to be), an endpoint within a network.

19. In response to applicant's argument that the proposed combination of references would not work, Applicant is reminded that the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). In this case, Examiner has clearly shown that the combined teachings would have been obvious to one of ordinary skill, (i.e.: the inventors of the prior art), and as such Examiner has met her burden in rendering Applicant's claimed invention unpatentable.

20. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does

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not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). Examiner again notes that proper motivation for combination of the cited references is noted herein.

21. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). Examiner again notes that proper motivation for combination of the cited references is noted herein. Thus, Examiner has addressed Applicant's Amendment, and has further rejected all claims, as noted herein above.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

US Patent Pub. No. US 2002/0004846 A1 to Garcia-Luna-Aceves;

US Patent Pub. No. US 2001/0056416 A1 to Garcia-Luna-Aceves;

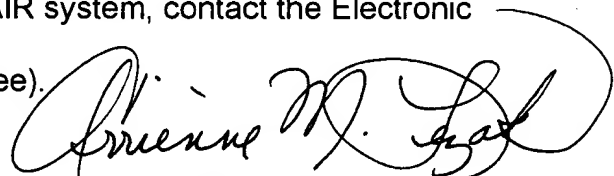
US Patent Pub. No. US 2002/0069279 A1 to Romero.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arrienne M. Lezak whose telephone number is (571)-272-3916. The examiner can normally be reached on M-F 8:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on (571)-272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Arrienne M. Lezak', enclosed within a large, loopy circular flourish.

Arrienne M. Lezak
Examiner
Art Unit 2143d

AML